STATEMENT OF WORK
FOR
Vaporous Hydrogen Peroxide

1. DESCRIPTION OF SERVICES. SCOPE: This Statement of Work (SOW) establishes the requirements for the evaluation of Vaporous Hydrogen Peroxide® (VHP) as a potential decontaminant for aircraft interiors. VHP has demonstrated the capability to effectively decontaminate both biological and chemical warfare contamination from surfaces. The purpose of this project effort is to determine the physical and chemical interaction of VHP with selected interior surface materials of the C-17 aircraft. AFRL at Wright Patterson AFB was requested by representatives of US ARMY Soldier Biological and Chemical Command, Edgewood, Maryland to conduct and manage the test program. It is anticipated that the tests are to be conducted at METSS Corporation, Westerville, Ohio.

If the material compatibility tests outlined below are successfully completed in accordance with the pass/fail criteria as defined in the test standards, it is anticipated that VHP can be used in follow-on testing with the C-17 aircraft. However, successful completion of these tests does not imply C-17 System Program Office (SPO) approval to implement VHP on the C-17. Further compatibility testing, if required, would be defined subsequent to the successful completion of the specified tests below.

1.1. BASIC SERVICES. The Air Force has identified key materials listed in the following table for testing under this effort. The contractor shall test the materials listed in the following table for compatibility with VHP, as defined by the test documentation of section 2. The exact materials tested (e.g., exact combinations of processing, form and coating type) will be finalized at the onset of the test with the support of Air Force personnel. The list of materials may be revised during the course of the program provided that any alternate or additional materials fall within the same general classes of the materials identified and are, therefore, compatible with the test methods being conducted by the contractor. Some materials may be eliminated from testing if sample materials cannot be obtained or supplied in the time frame needed to support the program objectives. The contractor shall immediately notify the Air Force of any issues related to materials acquisition. The total number of materials tested will not exceed 30. The contractor shall prepare all materials for testing in accordance with standard or recommended practices (e.g., cleaning, painting, curing, etc.). The contractor shall prepare test coupons and conduct the testing as outlined in this proposal. A final report will be prepared documenting the results of the tests in accordance with this Statement of Work.

1.2. RECOMMENDED TESTING

The standardized test methods to which may be used to support the testing and evaluation efforts are identified in the test methods listed in Section 2. Some methods are material specific and do not apply to all target test materials. Material test methods will be selected from these standards

based on the actual type and form of sample materials. Additional or alternative test methods may be derived from appropriate military specifications, as provided by the Government.

1.3 TEST CONDITIONS

Prior to the onset of testing, the contractor shall verify the quality of the VHP provided to support the program efforts by measuring pH and verifying purity via GC and HPLC.

- Vapor Phase Exposure - samples will be exposed to VHP in the test chamber provided by STERIS for the duration of the test as defined in each ASTM.
- Liquid Phase Exposure – will not be conducted under this test program.

The concentration of VHP for the duration of the 24 hour test exposure shall be TBD. Verification of the concentration shall be determined by TBD and documented for the final report.

Again, unless otherwise dictated by the test methods, replicates of each material will be subjected to the following exposure times and temperatures:

- Control (as received/unaged)
- 24 hour exposure to VHP @ 70 °F

Based on the results of the tests, the contractor and the Air Force may elect to conduct extended duration testing (up to 30-days) on select materials to gain a better idea of long-term performance after VHP exposure. Comparison of the short and long term exposure data will demonstrate whether or not material performance continues to degenerate as a function of VHP exposure.

1.4 REPORTING

The contractor shall provide informal electronic incremental reports on results and observations upon request, including data summary sheets for the testing conducted under this program. During the course of the testing and evaluation program, the contractor shall immediately identify any test failures and discuss additional testing that may be required to support the program evaluation. At the conclusion of the program the contractor shall provide a Scientific and Technical Report [DI-MISC-80711A/T] and be prepared to present its findings in an oral presentation to the Air Force. A Funds/Manhour Expenditure Report [DI-FNCL-80331/T] shall also be provided with the final technical report.

1.5 TEST SCHEDULE

The testing and evaluation efforts shall be completed by 1 May, 2004. Summary data will be provided to the Air Force at this time. The Final Report will be prepared and submitted to the procurement office by 30 June, 2004.

In order to meet this schedule, the Air Force will finalize the list of materials to be tested by the first week of February, 2004. The Air Force will also be required to provide samples of any materials that the contractor cannot obtain commercially in a time frame required to support the program schedule.

2. SERVICE DELIVERY SUMMARY.

Performance Objective	SOW Para	Performance Threshold
Scientific and Technical report SDS-1	1.4	0 Defects within timeframe
Funds/Man-hour Expenditure report SDS-2	1.4	0 Defects within timeframe

3. GOVERNMENT FURNISHED PROPERTY AND SERVICES.

4. GENERAL INFORMATION.

4.1. QUALITY CONTROL. The Contractor shall maintain quality program to ensure information dissemination services are performed in accordance with commonly accepted commercial practices. The contractor maintains procedures to identify and prevent defective services from reoccurring. As a minimum, the contractor shall maintain quality control procedures that address the areas identified in paragraph 2, Service Delivery Summary. The government evaluator (AFRL/HEPC) must have a specific quality control inspector to notify in case of customer complaints.

4.2. QUALITY ASSURANCE. The government will periodically evaluate the contractor's performance in accordance with the Quality Assurance Surveillance Plan.

4.3. GOVERNMENT REMEDIES. The contracting officer shall follow the requirements of FAR 52.212-4, Contract Terms and Conditions for Commercial Items, for contractor's failure to correct nonconforming services.

4.4. HOURS OF OPERATION. (N/A)

4.5. SECURITY REQUIREMENTS. All work under this SOW will be performed at the contractor's facility. Installations security requirements are not required Entrance onto a federal facility is not required.

4.6. PERFORMANCE OF SERVICES DURING CRISIS DECLARED BY THE NATIONAL COMMAND AUTHORITY OR OVERSEAS COMBATANT COMMANDER. N/A

4.7. SPECIAL QUALIFICATIONS.. None

5. APPENDICES.

A. C-17 Test Material
B. APPLICABLE DOCUMENTS AND TEST METHODS:

APPENDIX A

C-17 Test Material

C-17 Test Material	Air Force Supplied	Contractor Supplied
Floor Rollers (C-17, bidirectional)	✓	
Self-sticking anti-skid patches	✓	
Patching tape	✓	
Composite wall panels - Fabric lining	✓	
Composite wall panels - Insulfab® 330 (Facile Holdings, Inc.)	✓	
Kapton°® wire insulation		✓
Silicone - sheet and closed cell		✓
Nylon webbing		✓
Al 7050 - extrusions, forgings; sheets and rods; bare, painted, anodized		✓
Al 2024-T3, sheet		✓
CRES, sheet		✓
300M Steel, forging		✓
15-5PH, cast		✓
Ti-6Al-4V, forging		✓
Ti-10V-2Fe-3Al, forging		✓
Aircraft signal connectors	✓	
Electronic test assembly	✓	
Acrylic (cast and stretched)		✓
Polycarbonate (Lexan) (cast)		✓
Wiring (MIL-W-81381, 5086, 22759)	✓	